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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)

Applications for Consent to the)
Transfer of Control of Licenses)

MB Docket No. 07-57

XM Satellite Radio Holdings Inc.,)
Transferor)

MAILED

To)

AUG - 7 2008

Sirius Satellite Radio Inc.,)
Transferee)

FCC 08-178

MEMORANDUM OPINION AND ORDER AND REPORT AND ORDER

Adopted: July 25, 2008

Released: August 5, 2008

By the Commission: Chairman Martin and Commissioners Tate and McDowell issuing separate statements; Commissioners Copps and Adelstein dissenting and issuing separate statements.

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I. INTRODUCTION

1. In this Memorandum Opinion and Order and Report and Order ("Order"), we consider the consolidated application of Sirius Satellite Radio Inc. ("Sirius") and XM Satellite Radio Holdings Inc. ("XM," or jointly, the "Applicants") for consent to the transfer of control of the licenses and authorizations held by Sirius and XM, and their subsidiaries, for the provision of satellite digital audio radio service (or "SDARS") in the United States.¹ The Application is filed pursuant to section 310(d) of

¹ Consolidated Application for Authority to Transfer Control of XM Radio Inc. and Sirius Satellite Radio Inc., XM Satellite Radio Holdings Inc., Transferor, and Sirius Satellite Radio Inc., Transferee (Mar. 20, 2007) ("Application"). The Media Bureau placed the Application on public notice on June 8, 2007, establishing a comment cycle for this proceeding. See *Sirius Satellite Radio Inc. and XM Satellite Radio Holdings Inc. Seek Approval to Transfer Control of FCC Authorizations and Licenses*, 22 FCC Rcd 1032 (2007) ("Jun. 8, 2007 Public Notice"). On June 25, 2007, Applicants supplemented their Application with a further license transfer application. See Letter from Jennifer D. Hindin, Wiley Rein LLP, on behalf of Applicants, to Marlene H. Dortch, Secretary, FCC (June 25, 2007), attaching Form 312, Call Sign E060363. The supplemental application was accepted for filing on September 26, 2007. See Report No. SES-00966 (Earth Station Application SES-T/C-20070625-00863). That supplemental filing is deemed associated with the Application, which incorporates by reference the applications for approval of the transfer of control of those facilities listed in Appendix A hereto. On March 29, 2007, the Commission released a public notice designating this proceeding as "permit but disclose" for purposes of the Commission's *ex parte* rules. See *XM Satellite Radio Holdings, Inc. and Sirius Satellite Radio, Inc. Seek Approval To Transfer Control Of Licensee Entities Holding FCC Licenses and Other Authorizations*, 22 FCC Rcd 5548 (2007). On June 27, 2007, the Media Bureau initiated a rulemaking proceeding in MB Docket No. 07-57 seeking comment on whether language included in the 1997 Order establishing SDARS, which prohibited the transfer of (continued....)

the Communications Act of 1934, as amended ("Communications Act" or "Act"), and Sections 1.948 and 25.119 of the Commission's rules.² Applicants assert that grant of the Application will generate substantial, merger-specific public interest benefits and will not harm competition in any market because a combined satellite radio provider will have no market power.³ Based on the review of the record as set forth in the discussion below, we find that grant of the Application, with Applicants' voluntary commitments⁴ and other conditions discussed herein, is in the public interest.

2. Applicants operate satellite digital audio radio services in the 2320 to 2345 MHz spectrum band as authorized by the Commission after auction in 1997.⁵ XM commenced service in September 2001, and Sirius began service in February 2002.⁶ In order to establish fully a nationwide

(Continued from previous page)

control of one SDARS licensee to the other, constitutes a binding rule. *Applications for Consent to the Transfer of Control of Licenses, XM Satellite Radio Holdings, Inc., Transferor, to Sirius Satellite Radio Inc., Transferee*, Notice of Proposed Rule Making, 22 FCC Rcd 12018 (2007) ("2007 SDARS NPRM"). See Section VII.A. for discussion of the rulemaking proceeding. On December 7, 2007, Sirius filed an informational Form 312 application for a new space station license that was granted to Sirius on April 16, 2007, approximately one month after the Application was filed. Sirius requests that the Commission take the new license into account in its processing of the Application. See Letter from Jennifer D. Hindin, Wiley Rein LLP, Counsel for Sirius, to Marlene H. Dortch, Secretary, FCC (Dec. 7, 2007). We grant the request and associate the new space station license with all other authorizations and licenses as identified in Appendix A.

² 47 U.S.C. § 310(d); 47 C.F.R. §§ 1.948, 25.119.

³ Application at 2.

⁴ Letter from Richard E. Wiley, Robert L. Pettit, Wiley Rein LLC, Counsel for Sirius, and Gary M. Epstein, James H. Barker, Latham & Watkins LLP, Counsel for XM, to Kevin J. Martin, Chairman, FCC (June 16, 2008), Attachment, Letter dated June 13, 2008 from Richard E. Wiley, Robert L. Pettit, Wiley Rein LLP, Counsel for Sirius and Gary M. Epstein, James H. Barker, Latham & Watkins LLP, Counsel for XM, to Kevin J. Martin, Chairman, FCC (June 13, 2008) ("Applicants' June 13, 2008 Ex Parte"); Letter from Richard E. Wiley, Counsel for Sirius and Gary M. Epstein, Counsel for XM, to Kevin J. Martin, Chairman, Michael Copps, Commissioner, Jonathan Adelstein, Commissioner, Deborah Tate, Commissioner, and Robert McDowell, Commissioner, FCC (July 25, 2008), transmitted by Letter from Robert L. Pettit, on behalf of Applicants, to Marlene H. Dortch, Secretary, FCC (July 25, 2008) ("Applicants' July 25, 2008 Ex Parte").

⁵ See *American Mobile Radio Corporation Application for Authority to Construct, Launch, and Operate Two Satellites in the Satellite Digital Audio Radio Service*, Order and Authorization, 13 FCC Rcd 8829 (Int'l Bur. 1997) ("1997 XM Authorization Order"), modified by 16 FCC Rcd 18484, application for review denied, 16 FCC Rcd 21431 (2001), *aff'd sub nom. Primosphere Ltd. Partnership v. FCC* (Case Nos. 01-1526 and 1527), 2003 WL 472239 (C.A.D.C. Feb. 21, 2003); *XM Radio Inc., Order and Authorization*, 20 FCC Rcd 1620 (Int'l Bur. 2005) ("2005 XM Authorization Order"). The Commission originally licensed Sirius to launch and operate two satellites in geostationary orbit at the 80° and 110° West Longitude orbital locations. See *Satellite CD Radio, Inc. Application for Authority to Construct, Launch, and Operate Two Satellites in the Satellite Digital Audio Radio Service*, Order and Authorization, 13 FCC Rcd 7971 (Int'l Bur. 1997) ("1997 Sirius Authorization Order"), application for review denied, 16 FCC Rcd 21458 (2001), *aff'd sub nom. Primosphere Ltd. Partnership v. FCC* (Case Nos. 01-1526 and 1527), 2003 WL 472239 (C.A.D.C. Feb. 21, 2003). Sirius later requested, and was granted, authority to change its satellite configuration from two geostationary satellites to three satellites in non-geostationary satellite orbits (NGSO). See *Sirius Satellite Radio Inc., Application for Minor Modification of License to Construct, Launch and Operate a Non-Geostationary Satellite Digital Audio Radio Service System*, Order and Authorization, 16 FCC Rcd 5419 (Int'l Bur. 2001). SDARS is commonly referred to as "satellite radio." The Commission's rules define SDARS as "[a] radio communication service in which audio programming is digitally transmitted by one or more space stations directly to fixed, mobile, and/or portable stations, and which may involve complementary repeating terrestrial transmitters, telemetry, tracking and control facilities." 47 C.F.R. § 25.201. The term "DARS" refers to the same service that we refer to in this document as "SDARS."

⁶ Application at 3, 5.

radio service, both SDARS licensees operate terrestrial repeaters in areas where satellite signal reception is blocked by trees, buildings, or tunnels.⁷ Together, Sirius and XM offer hundreds of channels of music, entertainment, news, and sports programming, as well as weather and data information services for maritime, aeronautical and other purposes. In addition, Sirius offers video service in select vehicles equipped with a Sirius Backseat TV receiver.⁸ As of December 31, 2007, Applicants, collectively, had approximately 17.3 million subscribers in the United States.⁹ SDARS radio receivers are used in cars, trucks, boats, aircraft, and homes, and are available for portable use. Applicants also provide content to subscribers using streaming audio over the Internet as well as direct broadcast satellite ("DBS") and wireless networks.¹⁰ The current fee charged by each of Applicants for its basic SDARS service is \$12.95 per month.¹¹

3. As a result of the merger, Applicants maintain that consumers will be able to customize their programming options by selecting among several new and smaller programming packages, as well as two a la carte packages.¹² Applicants assert that these new programming features will provide greater discretion to parents to control the programming their children receive because parents may individually select which programs to receive or may select programming packages that do not include any adult or other objectionable content.¹³ Applicants indicate that, post-merger, subscribers will not pay more for the content they currently receive.¹⁴ Thus, subscribers who choose to do so may continue to receive the same content for \$12.95 per month and will not be harmed by the introduction of the a la carte and smaller programming packages proposed by Applicants. Applicants claim that permitting consumers to individually select channels will allow the combined company to make choices about content based on the choices made by subscribers, thus leading to the creation of more programming that consumers actually want.¹⁵ Applicants further voluntarily commit to not raising the rates for either their current packages or these new packages for three years.¹⁶ In addition, we are prohibiting Applicants from

⁷ *Id.* at 4, 6.

⁸ Sirius "Backseat TV" is currently offered in Dodge, Chrysler and Jeep vehicles. The service includes live television from three networks: Nickelodeon, Disney Channel and Cartoon Network. *See* Sirius, <http://www.sirius.com/backseattv> (visited June 24, 2008).

⁹ XM Radio reported 9.03 million subscribers as of December 31, 2007. *See* XM Radio Holdings Inc. SEC Form 10-K for the Fiscal Year Ended Dec. 31, 2007 ("XM Form 10-K") at 34. Sirius reported 8,321,785 subscribers as of that date. Sirius Satellite Radio, Inc. SEC Form 10-K for the Fiscal Year Ended Dec. 31, 2007 ("Sirius Form 10-K") at 3.

¹⁰ *See* Sections II.A-B for a complete description of the services offered by Applicants.

¹¹ Application at ii.

¹² *See* Section V.B.1. for discussion of new programming packages and prices, including A La Carte I and A La Carte II options. Applicants indicate that in the near term, subscribers will have to own two legacy receivers (one Sirius receiver and one XM receiver) to receive the complete offerings of both services because the combined company must continue to operate both legacy systems. Application at 12 n.27. The a la carte programming features will be available to customers who select their channels through the Internet and purchase next-generation radios. Joint Opposition at 11; *see also* Applicants' Supplemental Comments Regarding the Benefits of A La Carte ("Supp. Comments") at 2; Applicants' June 13, 2008 Ex Parte.

¹³ Applicants indicate that the combined company will provide subscribers a credit or rebate on their subscription fee if they choose to block adult programming. Application at 10, n.25, 12; *see also* Supp. Comments at 4.

¹⁴ Supp. Comments at 10.

¹⁵ *Id.* at 5.

¹⁶ Applicants' June 13, 2008 Ex Parte at 5. Applicants state that they may pass on some increases in programming costs after the first anniversary of the merger's consummation. *Id.*

reducing the number of channels in either their current packages or these new packages for three years.

4. To obtain Commission approval, Applicants must demonstrate that the proposed transaction will serve the public interest, convenience, and necessity pursuant to Section 310(d) of the Act.¹⁷ The Commission weighs any potential public interest harms of proposed transactions against any potential public interest benefits.¹⁸ Applicants have the burden of proving that the proposed transaction, on balance, serves the public interest by a preponderance of the evidence.¹⁹

5. We note that the Commission had been investigating Applicants' compliance with certain Commission regulations. On July 25, 2008, the Commission adopted Orders which adopted the Consent Decrees entered into between the Commission and XM, and the Commission and Sirius. These Consent Decrees terminated our investigations into Applicants' compliance with the Commission's regulations governing FM modulators and terrestrial repeaters. These issues are discussed in Section VII, below.

6. Based on the record before us, we conclude that the proposed transfer of control would violate our rule against one licensee controlling both SDARS licenses. We also conclude that, absent Applicants' voluntary commitments and other conditions discussed below, the proposed transaction would increase the likelihood of harms to competition and diversity. As discussed below, assuming a satellite radio product market, Applicants would have the incentive and ability to raise prices for an extended period of time. This is more likely given the spectrum and cost barriers which prevent entry by new SDARS providers that could offer consumers an alternative outlet for satellite radio service. In particular, additional spectrum is not available at this time without spectrum divestiture, which we have determined is inappropriate in light of the considerable financial investment needed to successfully operate an SDARS service, as well as the technical complications that might result from such divestiture.²⁰ Additionally, the regulatory and other business aspects involved in the start-up of such a cost-intensive operation make effective competitive entry unlikely within any relevant time horizon.

7. Applicants, however, have proposed significant voluntary commitments regarding steps the merged company would take to mitigate harms and achieve public interest benefits. We find that absent those voluntary commitments and other conditions, the harms of the transaction would outweigh the potential public interest benefits. On balance, however, we find that with Applicants' voluntary commitments and other conditions, the potential public interest benefits outweigh the harms. Accordingly, we conclude that repeal of the 1997 rule barring common ownership of SDARS licensees will serve the public interest. We also conclude that the transaction, with all of Applicants' voluntary commitments and other conditions, will serve the public interest, and we condition grant of the Applications on the merged firm's fulfillment of Applicants' voluntary commitments and other

¹⁷ 47 U.S.C. § 310(d); see also *Applications for Consent to the Assignment And/Or Transfer of Control of Licenses, Adelphia Comm. Corp., (and Subsidiaries, Debtors-In-Possession), Assignors, to Time Warner Cable Inc. (Subsidiaries), Assignees, Adelphia Comm. Corp., (and Subsidiaries, Debtors-In-Possession), Assignors and Transferors, to Comcast Corp. (Subsidiaries), Assignees and Transferees*, 21 FCC Rcd 8203, 8217 ¶ 23 (2006) ("*Adelphia Order*"); *General Motors Corp. and Hughes Elec. Corp., Transferors, and The News Corp. Ltd., Transferee, for Authority to Transfer Control*, 19 FCC Rcd 473, 485 ¶ 18 (2004) ("*News Corp.-Hughes Order*"); *Application of EchoStar Comm. Corp., General Motors Corp., Hughes Elec. Corp., (Transferors), and EchoStar Comm. Corp., (Transferee)*, Hearing Designation Order, 17 FCC Rcd 20559, 20574 ¶ 25 (2002) ("*EchoStar-DIRECTV HDO*").

¹⁸ *News Corp.-Hughes Order*, 19 FCC Rcd at 477 ¶ 5.

¹⁹ *Id.* at 483 ¶ 15.

²⁰ See Section VI.C.1.

conditions.²¹ Although we find it unnecessary to impose a condition requiring the inclusion of chips for digital audio broadcast ("DAB") or HD Radio™ in SDARS receivers,²² we believe that important questions have been raised about DAB that warrant further examination in a separate proceeding. As discussed in Section VI.B.4, the Commission commits to initiating a notice of inquiry within 30 days after adoption of this Order to gather additional information on the issue.

II. DESCRIPTION OF APPLICANTS

A. XM Satellite Radio Holdings Inc.

8. XM is a publicly traded Delaware corporation²³ headquartered in Washington, D.C. XM stock is traded on the NASDAQ Global Select Market under the symbol "XMSR."²⁴ XM operates using 12.5 MHz of spectrum in the 2332.5-2345 MHz frequency band.²⁵ This represents half of the available 25 MHz of SDARS spectrum.²⁶ XM obtained a license to use this half of the available 25 MHz of SDARS spectrum through Commission auction conducted in April 1997.²⁷

9. XM commenced operations in September 2001 and currently offers over 170 channels of music (including some commercial-free music channels), sports, news, talk and entertainment to its subscribers.²⁸ As of December 31, 2007, XM reported having over 9.03 million subscribers in the United States.²⁹ XM's programming includes channels devoted to broadcasts of Major League Baseball (MLB),

²¹ Compare *Applications of Ameritech Corp., Transferor, and SBC Comm., Inc., Transferee*, 14 FCC Rcd 14712, 14712 ¶ 2 (1999) ("SBC-Ameritech Order").

²² In 2002, the Commission adopted a single DAB transmission standard referred to as in-band, on-channel ("IBOC"), developed by iBiquity Digital Corp. ("iBiquity"), as the technology that would permit AM and FM radio broadcasters to introduce digital operations. "HD Radio" is part of iBiquity's brand name for its digital AM and FM radio technology. HD Radio, <http://www.hdradio.com/faq.php>. The term "HD Radio" in this Order refers to DAB operations. See Section VI.B.4, *infra*.

²³ Application at 4.

²⁴ XM Form 10-K at 29.

²⁵ Application at 4.

²⁶ SDARS is a domestic implementation of the Broadcasting Satellite Service (sound) (BSS (sound)) that was created as a result of the 1992 World Administrative Radio Conference. See International Telecommunications Union, *Final Acts of the World Admin. Radio Conf.* (Malaga-Torremolinos, 1992). The Commission originally allocated 50 megahertz of spectrum for SDARS on a primary basis in the 2310-2360 MHz frequency band to match the international allocation for BSS (sound) in this band. See *Amendment of the Commission's Rules with Regard to the Establishment and Regulation of New Digital Audio Radio Services*, Report and Order, 10 FCC Rcd 2310 (1995) ("SDARS Allocation Order"). Congress, however, subsequently directed the Commission to reallocate spectrum at 2310-2320 MHz and 2345-2360 MHz for terrestrial wireless services. See Omnibus Consolidated Appropriations Act, 1997, Pub. L. 104-208, 110 Stat. 3009 (1996). As a result, 25 MHz of spectrum at 2320-2345 MHz remains allocated exclusively for SDARS, although the Commission retained SDARS as a primary allocation throughout the 2310-2360 MHz frequency bands. See U.S. Table of Frequency Allocations, 47 C.F.R. § 2.106.

²⁷ See Public Notice, "FCC Announces Auction Winners for Digital Audio Radio Service," 12 FCC Rcd 18727 (1997) ("1997 SDARS Public Notice").

²⁸ XM Form 10-K at 2. In addition, XM states that it has advertising sales offices in several major media markets to sell directly to advertising agencies and media buying groups, and has sold advertising programs and sponsorships to hundreds of advertisers and agencies, including many Fortune 500 companies. *Id.* at 7.

²⁹ *Id.* at 34. "XM Canada" launched its satellite radio service in Canada in November 2005, offering over 130 channels for a monthly subscription fee of CDN \$14.99. Subscribers to XM Canada are not included in the subscriber totals for the United States. *Id.* at 6.

National Hockey League (NHL), Indy Racing League and college sports.³⁰ XM also carries ESPN Radio, ESPN News, Fox Sports, and XM Sports Nation (XMSN).³¹ Some of XM's programming is available in languages other than English and targets niche audiences. XM provides 21 dedicated traffic and weather channels for several large U.S. metropolitan areas,³² and offers a "free-to-air" channel for which no subscription is required that broadcasts emergency alerts, safety information, and Amber alerts on a 24-hour/7-days-a-week basis.³³ XM also offers content to subscribers using streaming audio over the Internet. XM original music, news and sports series are available as free podcasts for download through xmradio.com and Apple Inc.'s iTunes Store.³⁴ XM is available at participating Avis, National, and Alamo car rental locations, and on certain AirTran, JetBlue, and United airplanes.³⁵

10. XM has agreements to include an SDARS receiver as a factory-installed feature or a dealer-installed option in over 140 different vehicle models for model year 2008 with General Motors, Honda/Acura, Toyota/Lexus/Scion, Hyundai and Nissan/Infiniti, among others.³⁶ XM's receivers are also available aftermarket at retailers nationwide and through XM's website.³⁷

11. XM reports that it transmits content throughout the contiguous United States to vehicles, portable receivers, home and plug-and-play radios, some of which are capable of receiving both XM content and traditional AM/FM terrestrial radio stations.³⁸ XM's portable, handheld products include the Inno®, which allows consumers to "bookmark" songs heard on XM, connect the Inno® to a personal computer, and purchase the songs from the XM + Napster® online service.³⁹ XM plug-and-play radios include the "Xpress," which features split screen display and 30-minute pause and replay.⁴⁰ XM-ready

³⁰ XM's college sports programming includes the Atlantic Coast Conference, Pacific-10 Conference, Big Ten Conference, Big 12 Conference, Southeastern Conference and Big East Conference, PGA Tour, U.S. Open Tennis, and XM Deportivo. *Id.* at 3.

³¹ XM offers a variety of talk formats, news and religious programming, such as "Oprah & Friends," the "Dr. Laura Show," the Food Network, HGTV, the "Good Morning America Radio Show," Fox News, CNN, and C-Span. XM offers comedy channels, including the "Opie & Anthony Show," and a medical information channel called ReachMD. XM has additional news/talk/information/entertainment programming, including CNBC, Bloomberg, Fox Talk, CNN Headline News, The Bob Edwards Show, BBC Worldservice, The Power and CNN en Español. *Id.* at 3-4.

³² *Id.* at 4.

³³ Application at 5.

³⁴ XM Form 10-K at 7. XM Online, a subset of XM's satellite radio service, is available over the Internet as part of the basic radio subscription price of \$12.95 per month, and can also be purchased as a standalone service for \$7.99 per month. XM Online includes many of the commercial-free music channels available on XM's satellite radio service, several channels which are exclusively programmed for XM Online and various XM original news/talk/information channels, including XM Kids, P.O.T.U.S. '08, The Bob Edwards Show, XM Comedy, Laugh USA, Oprah & Friends, and The Virus, featuring Opie & Anthony. *Id.* at 6. Through DIRECTV, XM offers several channels of XM's music, children's and talk programming to DIRECTV's customers. *Id.*

³⁵ *Id.* at 7.

³⁶ *Id.* at 4. XM also has agreements with automotive manufacturers Ferrari, Isuzu, Lotus, Subaru, Suzuki, Porsche and Harley-Davidson as either a dealer and/or factory-installed option in several models. *Id.* at 5.

³⁷ *Id.* at 5.

³⁸ *Id.* at 7.

³⁹ *Id.* at 5.

⁴⁰ *Id.*

and Mini-Tuner technologies integrate into a broad range of home devices such as stereo receivers and DVD players by allowing consumers to connect an XM Mini-Tuner into an XM-ready receiver.⁴¹ XM's advanced technology applications include XM NavTraffic®, which provides continuously updated real-time traffic information for 80 major metropolitan areas across the United States for a monthly fee.⁴² XM aviation and marine applications include the XM WX® weather service, which provides real-time graphical weather data.⁴³

12. XM primarily provides its service directly to subscribers via satellite. XM, through its 100 percent owned subsidiary, XM Radio Inc. ("XM Radio"),⁴⁴ is licensed to operate four satellites in geostationary orbit at or near the 85° W.L. and 115° W.L. orbital locations.⁴⁵ From these orbital locations, XM is able to provide service to the contiguous United States, or "CONUS," as well as parts of Alaska.⁴⁶ XM operates a network of terrestrial repeaters, pursuant to grants of special temporary authority, in order to improve the quality of its signal in areas in which the signal may be obstructed, such as by tall buildings and tunnels.⁴⁷

13. XM Radio holds three authorizations for transmit/receive earth stations that are licensed to communicate with XM's satellites in the S- (2320-2345 MHz), C- (4/6 GHz), and X- (7025-7075 GHz) bands.⁴⁸ XM Radio also holds an experimental license under Part 5 of the Commission's rules.⁴⁹

B. Sirius Satellite Radio Inc.

14. Sirius is a publicly traded Delaware corporation and is headquartered in New York City, New York.⁵⁰ Sirius stock is traded on the NASDAQ Global Select Market under the symbol "SIRI."⁵¹ Sirius operates using 12.5 MHz of spectrum in the 2320-2332.5 MHz frequency band. Sirius obtained a license to use its half of this spectrum through an auction conducted in April 1997.⁵²

15. Sirius commenced service in February 2002, and currently offers over 130 channels, including 69 channels of commercial-free music, 54 channels of sports, news, talk, and entertainment, and 11 channels of traffic, weather, and informational data services.⁵³ As of December 31, 2007, Sirius

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.*

⁴⁴ Application, Attachment A.

⁴⁵ 1997 XM Authorization Order, 13 FCC Rcd at 8850 ¶¶ 51-52; 2005 XM Authorization Order, 20 FCC Rcd at 1620 ¶ 1.

⁴⁶ Application at 6.

⁴⁷ *Id.* See also XM Radio Inc., Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complementary Terrestrial Repeaters, Order and Authorization, 16 FCC Rcd 16781 (Int'l Bur. 2001) ("XM Radio STA Order"); XM Radio, Inc., Order, FCC 08-177 (adopted July 25, 2008) ("XM Consent Decree Order"), as discussed in Section VII.B., *infra*.

⁴⁸ Application at 53.

⁴⁹ *Id.* (call sign WB2XCA).

⁵⁰ Sirius Form 10-K at 13.

⁵¹ *Id.* at 24.

⁵² See 1997 SDARS Public Notice.

⁵³ Application at 3; see also Sirius Form 10-K at 5.

reported 8,321,785 subscribers in the United States.⁵⁴ Sirius's musical offerings consist of channels dedicated to genres such as pop, rock, electronic, hip hop, rhythm and blues, country, Christian, blues, jazz, classical, Latin, big band, and show tunes.⁵⁵ Sports programming includes coverage of the National Football League (NFL), National Basketball Association (NBA), National Association of Stock Car Auto Racing (NASCAR), and college sports and other sports programming, such as ESPN Radio, ESPN News and ESPN Deportes, which is ESPN's Spanish language programming.⁵⁶

16. Several of Sirius's music, news, and talk channels are available in languages other than English or target niche audiences, and include, among other programs, Howard Stern, Martha Stewart, and Barbara Walters.⁵⁷ Sirius news and information channels include BBC World Service News, Bloomberg Radio and CNBC.⁵⁸ Sirius reports that its 11 channels of traffic and weather cover 20 metropolitan markets throughout the United States, and include one channel dedicated to emergency information and the transmission of emergency messages as part of the Emergency Alert System (EAS).⁵⁹

17. In 2007, Sirius introduced Sirius Backseat TV, a television service offering content designed primarily for children from Nickelodeon, Disney Channel and Cartoon Network in the backseat of vehicles.⁶⁰ Sirius also provides streaming audio content to subscribers via the Internet, and music channels to DISH satellite television and Sprint mobile telephone subscribers.⁶¹

⁵⁴ Sirius Form 10-K at 3. In 2005, Sirius Canada launched its service in Canada offering 110 channels of commercial music and news, sports, talk and entertainment programming, including 11 channels of Canadian content and the Howard Stern 100 channel for CDN \$14.99 per month. As of October 2007, Sirius Canada had more than 500,000 subscribers. Subscribers to Sirius Canada are not included in the subscriber total for the United States. *Id.* at 10.

⁵⁵ Application at 3.

⁵⁶ Sirius Form 10-K at 5-6. Sirius carries play-by-play coverage of football, basketball and other sports from 18 NCAA Division I Conferences, and has the right to broadcast all games of the NCAA Division I men's basketball tournament through 2009. Sirius also airs Wimbledon Championships, Arena Football League, National Lacrosse League and horse racing. *Id.* at 6.

⁵⁷ *Id.* Religious programming includes the Catholic Channel, programmed with the assistance of the Archdiocese of New York. Other religious programming includes EWTN Global Catholic Radio Network and Family Net Radio, programmed by Family Net, an affiliate of the Southern Baptist Convention. *Id.*

⁵⁸ *Id.* Sirius also carries CNN, Fox News, National Public Radio and the World Radio Network. *Id.* Additional content services offered by Sirius include Sirius Music for Business, a music service for commercial entities available through Applied Media Corporation, Dynamic Media, Turn Key Media and Info Hold Inc. *Id.* at 10. Sirius's marine weather service features information on weather and wave heights to sea surface temperatures for recreational boaters and covers the 48 contiguous states and waters extending hundreds of miles into the Atlantic and Pacific Oceans, Gulf of Mexico and Caribbean. *Id.*

⁵⁹ *Id.* at 6; *see also* Application at 3. The metropolitan areas covered are New York, Boston, Philadelphia, Los Angeles, Chicago, St. Louis, Washington D.C., Baltimore, Atlanta, Miami, Dallas, Houston, Detroit, Las Vegas, San Francisco, Seattle, Phoenix, San Diego, Tampa, and Orlando. SIRIUS, <http://www.sirius.com/trafficweather> (visited June 17, 2008).

⁶⁰ *See* Sirius, SIRIUS Satellite Radio Launches the First Aftermarket Satellite Radio Tuner That Can Receive SIRIUS Backseat TVTM (press release) Aug. 15, 2007.

⁶¹ *See* Application at 3. Sirius offers graphic information on road closings, traffic flow and incident data to consumers with in-vehicle navigation systems, and a marine weather service that provides a range of information, including sea surface temperatures, wave heights and extended forecasts to recreational boaters. *See* Sirius Form 10-K at 4. Sirius states that it intends to launch Sirius Travel Link, a suite of data services that includes real-time traffic, tabular and graphical weather, fuel prices, sports schedules and scores, and movie listings. Sirius Travel (continued....)

18. Sirius has agreements with automobile manufacturers to include an SDARS receiver in vehicles as a factory or dealer-installed option in 116 vehicle models, and as a dealer only installed option in 37 vehicle models.⁶² Sirius receivers are also available for installation in homes, automobiles, boats, and aircraft, and may be purchased through its website, as well as through retailers nationwide.⁶³ Sirius radios are also offered to renters of Hertz vehicles at airport locations nationwide.⁶⁴

19. Sirius primarily provides its service directly to subscribers via satellite. Sirius, through its 100 percent owned subsidiary, Satellite CD Radio, Inc. ("Satellite CD Radio"),⁶⁵ holds a license from the Commission to operate a fleet of three satellites in highly-elliptical orbits ("HEO").⁶⁶ Sirius also holds an authorization to launch and operate a satellite in geostationary satellite orbit ("GSO") at the 96° West Longitude (W.L.) orbital location in conjunction with Sirius's three HEO satellites, but has not yet launched this satellite.⁶⁷ Sirius serves subscribers throughout the 48 contiguous United States via its satellite system. Sirius operates a network of terrestrial repeaters in urban areas, pursuant to grants of special temporary authority, in order to improve the quality of reception in areas where there is interference to the satellite signal from tall buildings, tunnels, heavy foliage or other obstructions.⁶⁸ In addition to its satellite licenses, Sirius holds four authorizations for transmit/receive earth stations that are licensed to communicate with Sirius's satellites in the S- (2320-2345 MHz), C- (4/6 GHz), X- (7025-7075

(Continued from previous page)

Link is expected to be standard on Ford's next generation navigation system and offered on select Ford, Lincoln and Mercury vehicles in 2008. *Id.*

⁶² Sirius Form 10-K at 7. Sirius satellite radio is available in Chrysler, Dodge, Jeep, Mercedes-Benz, Ford, Mitsubishi, BMW, Freightliner LLC, Volkswagen, Kia, Audi, Lincoln, Mercury, Mazda, Land Rover, Jaguar, Aston Martin, MINI, Maybach, Bentley Motors Inc., Rolls-Royce, Toyota, Sterling, Peterbilt, Kenworth, Volvo, International and Scion vehicles. *Id.* at 7-8.

⁶³ *Id.* at 3. Sirius also offers a variety of portable radios. *Id.* at 3.

⁶⁴ Sirius Form 10-K at 4.

⁶⁵ Application at Attachment A.

⁶⁶ The Commission originally licensed Sirius to launch and operate two satellites in geostationary orbit at the 80° and 110° West Longitude orbital locations. 1997 *Sirius Authorization Order*, 13 FCC Rcd at 7971, 7994. Sirius later requested, and was granted, authority to change its satellite configuration from two geostationary satellites to three satellites in a highly elliptical non-geostationary orbit (NGSO). *Sirius Satellite Radio Inc., Minor Modification of License to Construct, Launch and Operate a Non-Geostationary Satellite Digital Audio Radio Service System*, Order and Authorization, 16 FCC Rcd 5419 (Int'l Bur. 2001).

⁶⁷ See *Sirius Satellite Radio Inc., Application for Authority to Launch and Operate SIRIUS FM-5, a Geostationary Satellite, to Provide Satellite Digital Audio Radio Services*, IBFS File No. SAT-LOA-20060901-00096 (granted April 16, 2007). The Commission had not yet granted this application at the time of filing of the Transfer Application, but Applicants specifically request that the Commission include authority to transfer control of any applications issued during the period between submission of the Transfer Application and Commission action on the same. See Application at Part VI.B. In addition, Sirius subsequently filed an "informative" Form 312 to include this authorization as part of the transfer of control application. See n.1, *supra*.

⁶⁸ See, e.g., *Sirius Satellite Radio, Inc., Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complementary Terrestrial Repeaters*, Order and Authorization, 16 FCC Rcd 16773 (Int'l Bur. 2001) ("*Sirius STA Order*"). See also *Sirius Satellite Radio Inc., Order*, FCC 08-176 (adopted July 25, 2008) ("*Sirius Consent Decree Order*"), as discussed in Section VII.B., *infra*. Sirius states that it plans to deploy a significant number of additional terrestrial repeaters in the future. Sirius Form 10-K at 18.

GHz), and Ku- (12/14 GHz) bands.⁶⁹ Sirius also holds a Commission wireless license.⁷⁰

C. The Proposed Transaction

20. On February 19, 2007, Applicants, the only entities authorized by the Commission to provide satellite digital audio radio service in the United States, entered into an Agreement and Plan of Merger.⁷¹ The surviving corporation after all the transactional steps are completed will be Sirius Satellite Radio, Inc. It will hold, through its subsidiaries Satellite CD Radio, Inc. and XM Satellite Radio Holdings Inc., all of the Commission licenses and authorizations Sirius and XM respectively hold prior to the merger.⁷² The merged corporation will be controlled by a new Board of Directors, selected by both Sirius and XM, and its equity ownership will be represented equally by former shareholders of Sirius and XM.⁷³

21. Applicants propose that the merged company will offer a range of programming packages at lower prices than are currently available from the individual companies.⁷⁴ In their Joint Opposition, Applicants state that some packages will be offered beginning within six months of the consummation of the merger, including "best of both" packages, discounted "family friendly" packages, and a "best of both" package that excludes adult-themed content.⁷⁵ Beginning one year following the merger, Applicants state they will offer a la carte packages of 50 or 100 channels to those subscribers who purchase next-generation radios.⁷⁶ Applicants state that no satellite radio subscriber will have to pay

⁶⁹ See Application at 54; see also Application to Transfer Control of Sirius Satellite Radio Inc. Earth Station Authorizations to Sirius Satellite Radio Inc., IBFS File No. SES-T/C-20070320-00379 (Call Signs E990291, E040363, E060276, E060277); File No. SES-T/C-20070625-00863 (Call Sign E060363).

⁷⁰ See ULS File No. 0002948781 (filed Mar. 20, 2007) (seeking Commission consent to the transfer of control of an Industrial/Business Pool license, call sign WPTX369, from Sirius Satellite Radio Inc. to the merged entity); see also Application at 54.

⁷¹ Agreement and Plan of Merger dated as of February 19, 2007, by and among Sirius Satellite Radio Inc., Vernon Merger Corporation, and XM Satellite Radio Holdings Inc. ("Merger Agreement"). Application at 1, 6. Pursuant to the Merger Agreement, a wholly owned subsidiary of Sirius, Vernon Merger Corporation, will be merged with and into XM, with Sirius being the surviving corporation of the subsidiary merger. At the effective time of the merger, each outstanding share of XM common stock will generally be converted into the right to receive 4.6 shares of common stock of Sirius, and each outstanding share of XM Series A Convertible Preferred Stock will be similarly converted into the right to receive 4.6 shares of a newly designated series of preferred stock of Sirius having substantially the same qualifications as the stock so converted. XM will continue to hold the stock of its subsidiaries, and XM and its subsidiaries will continue to hold all of the FCC authorizations that they held prior to the merger. *Id.* at 6.

⁷² Application at 6-7, Attachment A. These licenses are held pursuant to Section 310(d) of the Communications Act.

⁷³ See Application at 6-7. Following the merger, the surviving company's Board of Directors will consist of the following: four members selected by Sirius and four members selected by XM, each of whom shall qualify as an independent director pursuant to NASDAQ Market Rules; the Chief Executive Officer; the Chairman of the Board of Directors; and two additional members, one of whom is expected to be designated by General Motors and the other by American Honda. See Application at 7. See Slacker, Inc. Comments at n.413, *infra*.

⁷⁴ See Applicants' Joint Opposition to Petitions to Deny and Reply Comments ("Joint Opposition").

⁷⁵ *Id.* at 10-14. See also XM and Sirius, *XM and SIRIUS to Offer A La Carte Programming* (press release) Jul. 23, 2007.

⁷⁶ Joint Opposition at 11-14.

*more for monthly services as a result of the merger.*⁷⁷

22. On June 13, 2008 and July 25, 2008, Applicants provided letters detailing and further modifying a number of voluntary commitments they were willing to implement to “further demonstrate” that the approval of their transaction would serve the public interest.⁷⁸ With regard to programming, the Applicants state that within three months of consummation of the merger, the combined company will offer (1) two a la carte options and introduce a la carte capable radios, (2) a “Best of Both” programming package, (3) a “mostly music” package and a “mostly news, sports and talk” package, and (4) a discounted “family-friendly” package. Applicants also state that the merged entity will set aside 4 percent of its full-time audio channels for noncommercial educational and informational programming, and will lease another 4 percent of its channels to “qualified entities.”⁷⁹ With regard to rates, Applicants state that they will not raise their current rates nor the rates for their new services for at least 36 months after the consummation of the merger (except that after one year, Applicants may pass on cost increases to their subscribers).⁸⁰ Six months prior to the expiration of the commitment period, the Commission will seek public comment on whether the cap continues to be necessary in the public interest. The Commission will then determine whether it should be modified, removed, or extended. With regard to equipment, within nine months after consummation of the merger, Applicants state that the merged entity will offer for sale at retail an interoperable satellite radio receiver (i.e., one that is capable of receiving both the full Sirius and the full XM programming).⁸¹ They state that the merged entity also will (1) permit any manufacturer to develop equipment that can deliver their satellite radio service and (2) permit manufacturers to incorporate in any satellite radio receivers other technology (so long as it does not result in harmful interference), including HD Radio technology.⁸² To this end, immediately after consummation of the merger, Applicants will offer for license to bona fide third parties the intellectual property they own and control of the basic functionality of satellite radios (not including chip set and encryption technology). Applicants also voluntarily commit that the merged entity would not enter into any agreements that would bar others from including other (non-interfering) audio technology in any device or vehicle.⁸³ Finally, Applicants voluntarily commit to providing Sirius satellite radio service to Puerto Rico using terrestrial repeaters.⁸⁴

D. Post-Merger Operations

23. Applicants state that, post merger, they will continue to operate the XM and Sirius infrastructures as separate, legacy systems in the near term, and that neither system currently has

⁷⁷ *Id.* at 13-14.

⁷⁸ Applicants’ June 13, 2008 Ex Parte at 1; Applicants’ July 25, 2008 Ex Parte at 1.

⁷⁹ Applicants define a “qualified entity” as any entity that is majority-owned by persons who are African American, not of Hispanic origin; Asian or Pacific Islanders; American Indians or Alaskan Natives; or Hispanics. Applicants’ June 13, 2008 Ex Parte at 1 at 3 n.2.

⁸⁰ Applicants state that they “may pass through cost increases incurred since the filing of the combined company’s FCC merger application as a result of statutorily or contractually required payments to the music, recording and publishing industries for the performance of musical works and sound recordings or for device recording fees.” Applicants’ June 13, 2008 Ex Parte at 4. *See* ¶ 107, *infra*.

⁸¹ Applicants’ July 25, 2008 Ex Parte at 2.

⁸² Applicants’ June 13, 2008 Ex Parte at 3.

⁸³ *Id.*

⁸⁴ *Id.* at 4.

sufficient capacity to offer both companies' full programming line-ups.⁸⁵ Although Applicants state that some aspects of the two legacy infrastructures could be integrated into a common platform in a relatively short time frame, combining all aspects of the two infrastructures will take much longer.⁸⁶ Consequently, Applicants state that subscribers of the merged entity would have to own two legacy receivers (one XM receiver and one Sirius receiver) in order to receive the complete offerings of the combined entity.⁸⁷ The need for two separate receivers results from the significant engineering differences between the XM and Sirius systems and the lack of an interoperable receiver capable of accessing all licensed SDARS systems.⁸⁸ As discussed below, the need to operate two separate legacy systems post-merger delays realization of some of the spectrum efficiency benefits claimed by Applicants.⁸⁹

24. Applicants identify significant engineering differences in their existing platforms that would make integration difficult in the short term.⁹⁰ Both Applicants use satellites and terrestrial repeaters to deliver programming to subscribers, but each has taken a different approach in implementing its system. For example, XM operates its system using two active satellites in geostationary orbit,⁹¹ whereas Sirius uses three satellites in a highly inclined, elliptical non-geostationary orbit.⁹² The difference in orbital constellations affects the design of the antennas used to receive the satellite signal,⁹³ the terrestrial repeater network used to augment the satellite service,⁹⁴ and the uplink antennas used to communicate with the satellites.⁹⁵ Each Applicant has invested significantly in its existing infrastructure with the expectation of operating its infrastructure for years to come.⁹⁶

⁸⁵ Application at 12 n.27.

⁸⁶ XM Nov. 16, 2007 Response to Information and Document Request, Narrative at 25 (XM filed a duplicate submission on Dec. 4, 2007 to correct a formatting issue with the Nov. 16, 2007 filing. In this Order, we cite to the Nov. 16, 2007 filing).

⁸⁷ Application at 12, n.27.

⁸⁸ See *infra* Section VI.B.3; see also Sirius Nov. 16, 2007 Response to Information and Document Request, Narrative at 67 ("it is anticipated that consumers who want to access all of the programming offered by the merged company will have to purchase new interoperable radios capable of receiving signals on the spectrum now licensed separately to Sirius and XM").

⁸⁹ See *infra* Section V.B.4.

⁹⁰ XM Nov. 16, 2007 Response to Information and Document Request, Narrative at 25-29; Sirius Nov. 16, 2007 Response to Information and Document Request, Narrative at 37-40.

⁹¹ 2005 XM Authorization Order, 20 FCC Rcd at 1620 ¶ 1 (authorizing XM to launch and operate the XM-3 and XM-4 satellites and to operate the XM-1 and XM-2 satellites as in-orbit spares).

⁹² Sirius Nov. 16, 2007 Response to Information and Document Request, Narrative at 38.

⁹³ Sirius states that the receive antennas of XM's and Sirius' radios are optimized differently in order to provide the best reception given the different elevation angles needed to view XM's satellites in geostationary orbit and Sirius's satellites in highly-elliptical orbits. See Sirius Nov. 16, 2007 Response to Information and Document Request, Narrative at 38-39.

⁹⁴ Sirius states that it needs fewer repeaters than XM due to the high angle of elevation of Sirius' satellites in highly-elliptical orbit. See Sirius Nov. 16, 2007 Response to Information and Document Request, Narrative at 39.

⁹⁵ Sirius states that its satellites in highly-elliptical orbits require uplink antennas with full motion to track the satellites across the sky, whereas XM's satellites in geostationary orbit do not. See *id.*

⁹⁶ XM's two operational satellites, XM-3 and XM-4, were launched in 2005 and 2006, respectively, and have expected operational lifetimes of 15 years. See XM, *XM Radio's XM-4 Satellite Successfully Delivered to Transfer Orbit* (press release) Oct. 30, 2006; XM, *XM Radio's Satellite Successfully Delivered to Orbit* (press release) Mar. 1, (continued....)

25. Besides differences in satellite infrastructure, Applicants currently use different technology for transmission and reception of their programming to subscribers that makes integration to a common platform difficult in the short term. XM and Sirius are assigned 12.5 MHz of spectrum each, but Sirius divides its spectrum into three identical carriers of approximately 4 MHz each, whereas XM divides its spectrum into six carriers.⁹⁷ As a result, current XM receivers are not designed to receive Sirius's programming, and vice versa. Furthermore, although XM and Sirius have used a common manufacturer for some of the chipsets used in their receivers, they also use a number of different chipset manufacturers, and the chipsets are highly tuned to address only the transmissions of Sirius or XM, respectively.⁹⁸ Applicants state that any migration to a common platform will likely require the development of new chipsets.⁹⁹ Applicants state that if the combined company were to migrate to a common platform while a significant number of single-platform devices were still in use, then the combined company would either risk losing millions of customers by forcing the purchase of new radios, or face prohibitive costs to replace millions of single-platform radios, most of which will be hard-wired into cars.¹⁰⁰ Thus, Applicants indicate that it is unlikely that the merged company would convert to a common platform until nearly all subscribers have migrated to receivers with new chipsets capable of operating under a common platform.¹⁰¹

E. Applications and Review Process

1. Commission Review

26. On March 20, 2007, Applicants submitted the Consolidated Application to the Commission seeking consent to transfer control of Commission licenses and authorizations held by Sirius, XM and their subsidiaries pursuant to Section 310(d) of the Communications Act of 1934, as amended.¹⁰² On June 8, 2007, the Media Bureau accepted the Consolidated Application for filing and released a Public Notice establishing the pleading cycle for parties to file comments with respect to the transfer of control.¹⁰³

27. On June 25, 2007, the Commission adopted the *2007 SDARS NPRM*, seeking public comment as to whether language included in the *1997 SDARS Service Rules Order* establishing SDARS

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2005. Sirius' current operational satellites were launched in 2000, and Sirius is in the process of implementing replacement satellites. See Satellite CD Radio, Inc., Application for Modification of Authority, IBFS File No. SAT-MOD-20080521-00110 (filed May 21, 2008) (requesting authority to launch and operate the FM-6 satellite as an eventual replacement for two in-orbit Sirius NGSO satellites). Because SDARS is the only commercial satellite service authorized to use the 2320-2345 MHz frequency band in the United States, it is unlikely that either Applicant would be able to sell its satellite infrastructure to a non-SDARS provider.

⁹⁷ XM Nov. 16, 2007 Response to Information and Document Request, Narrative at 29; Sirius Nov. 16, 2007 Response to Information and Document Request, Narrative at 37.

⁹⁸ Sirius Nov. 16, 2007 Response to Information and Document Request, Narrative at 40.

⁹⁹ *Id.* at 44-45.

¹⁰⁰ XM Nov. 16, 2007 Response to Information and Document Request, Narrative at 26. In addition, Applicants have committed to the public that no customer will need to purchase a new radio to keep "substantially similar service" after the merger. *Id.* at 27 n.11.

¹⁰¹ See Sirius Nov. 16, 2007 Response to Information and Document Request, Narrative at 41, 44-45.

¹⁰² See 47 U.S.C. § 310(d); Consolidated Application.

¹⁰³ Jun. 8, 2007 Public Notice, 22 FCC Rcd at 1032. Comments were due July 9, 2007, and responses and oppositions were due on July 24, 2007.

service, which prohibits the transfer of control of one SDARS licensee to the other,¹⁰⁴ constitutes a binding rule.¹⁰⁵ In the event the Commission was to determine that the language in the *1997 SDARS Service Rules Order* is a binding rule, the *2007 SDARS NPRM* sought comment on whether the Commission should waive, modify, or repeal the transfer prohibition if the Commission subsequently determined that the proposed merger of XM and Sirius, on balance, serves the public interest.¹⁰⁶

28. Many entities filed comments in support of the transfer of control application, including Competitive Enterprise Institute ("CEI"); The Heritage Foundation ("Heritage"); Progress and Freedom Foundation ("PFF"); National Association for the Advancement of Colored People ("NAACP"); Hispanic Federation; General Motors Corp. ("GM"); Circuit City; Sen. John Ensign; Rep. Rick Boucher; and Former Sen. Bill Bradley. In addition, nine parties filed petitions to deny the application: Mt. Wilson FM Broadcasters, Inc. ("Mt. Wilson"); the National Association of Broadcasters ("NAB"); Common Cause, Consumer Federation of America, Consumers Union and Free Press ("Common Cause"); American Women in Radio and Television, Inc. ("AWRT"); the Consumer Coalition for Competition in Satellite Radio ("C3SR"); The Telecommunications Advocacy Project ("TAP"); The National Association of Black Owned Broadcasters ("NABOB"); National Public Radio ("NPR"); and Forty-Six Broadcasting Organizations.¹⁰⁷ An "informal objection" was filed by Prometheus Radio Project, U.S. Public Interest Research Group, and Media Access Project ("Prometheus Radio").¹⁰⁸ The Commission also received almost 17,000 formal and informal comments on the proposed transfer of control. In addition, comments and reply comments were filed with regard to issues raised in the *2007 SDARS NPRM* by 18 parties. The Commission also requested additional information from Applicants.¹⁰⁹ Applicants' separately-filed

¹⁰⁴ *Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band*, Report and Order, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 5754, 5823 ¶ 170 (1997) ("*1997 SDARS Service Rules Order*").

¹⁰⁵ *2007 SDARS NPRM*, 22 FCC Rcd at 12018 ¶ 1.

¹⁰⁶ A summary of the *2007 SDARS NPRM* was published in the Federal Register on July 12, 2007, 72 FR 38055 (July 12, 2007). The following day, the Media Bureau issued the Public Notice setting forth deadlines for filing comments and reply comments to the *2007 SDARS NPRM*. Public Notice, *Media Bureau Announces Comment and Reply Comment Dates for the Notice of Proposed Rule Making Regarding Applications for Consent to the Transfer of Control of Licenses, XM Satellite Radio Holdings Inc., Transferor, to Sirius Satellite Radio Inc., Transferee*, 22 FCC Rcd 13036 (Med. Bur. 2007). Comments were due by August 13, 2007, and reply comments were due by August 27, 2007.

¹⁰⁷ See Petition to Deny filed by Mt. Wilson FM Broadcasters, Inc. ("Mt. Wilson Petition"); Petition to Deny filed by the National Association of Broadcasters ("NAB Petition"); Petition to Deny filed by Common Cause, Consumer Federation of America, Consumers Union and Free Press ("Common Cause Petition"); Petition to Deny filed by American Women in Radio and Television, Inc. ("AWRT Petition"); Petition to Deny filed by the Consumer Coalition for Competition in Satellite Radio ("C3SR Petition"); Petition to Deny filed by The Telecommunications Advocacy Project ("TAP Petition"); Petition to Deny filed by The National Association of Black Owned Broadcasters ("NABOB Petition"); Petition to Deny filed by National Public Radio ("NPR Petition"), and Petition to Deny filed by Forty-Six Broadcasting Organizations ("46 Broadcasters Petition"). An untimely Petition to Deny was filed by the National Association of Telecommunications Officers and Advisors ("NATOA"). The NATOA Petition will be considered as a comment in the proceeding.

¹⁰⁸ See Informal Objection filed by Prometheus Radio Project, U.S. Public Interest Research Group, and Media Access Project ("Prometheus Radio Objection"). This filing will be considered as a comment in the proceeding.

¹⁰⁹ On July 11, 2007, the Media Bureau adopted a Protective Order under which third parties were allowed to review confidential or proprietary filings and documents submitted by Applicants. See Applications of Sirius Satellite Radio, Inc. and XM Satellite Radio Holdings Inc. For Approval to Transfer Control, Protective Order, 22 FCC Rcd 12822 (Med. Bur. 2007) ("*First Protective Order*"). On November 2, 2007, the Bureau issued a request for information from Sirius and XM. Letter from Monica Shah Desai, Chief, Media Bureau, FCC, to Richard E. Wiley, (continued....)

responses to those requests are included in the record.¹¹⁰

2. Department of Justice Review

29. In addition to Commission review, the proposed transaction is subject to review by federal antitrust authorities, in this instance by the U.S. Department of Justice ("DOJ"). The DOJ reviews communications mergers and transactions pursuant to section 7 of the Clayton Act, which prohibits mergers that may substantially lessen competition in any line of commerce.¹¹¹ On March 24, 2008, the DOJ announced that it had "close[d] its investigation of the transaction" without taking any enforcement action against the proposed merger.¹¹²

III. STANDARD OF REVIEW AND PUBLIC INTEREST FRAMEWORK

30. Pursuant to section 310(d) of the Communications Act, we must determine whether Applicants have demonstrated that the proposed transfers of control of the licenses and authorizations held by XM and Sirius will serve the public interest, convenience, and necessity.¹¹³ In making this assessment, we evaluate whether the proposed transaction complies with the specific provisions of the

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Robert L. Pettit, Peter D. Shields and Jennifer D. Hindin, Wiley Rein LLP, Counsel for Sirius (Nov. 2, 2007) ("Sirius Information Request"); Letter from Monica Shah Desai, Chief, Media Bureau, FCC, to Gary M. Epstein, James H. Barker and Brian W. Murray, Latham & Watkins LLP, Counsel for XM (Nov. 2, 2007) ("XM Information Request"). On November 16, 2007, the Bureau issued a second Protective Order regarding additional conditions applicable to third party review of highly confidential competitively sensitive documents. *See Applications of Sirius Satellite Radio, Inc. and XM Satellite Radio Holdings Inc. For Approval to Transfer Control, Protective Order*, 22 FCC Rcd 19924 (Med. Bur. 2007) ("Second Protective Order").

¹¹⁰ *See* Letter from Peter D. Shields, Wiley Rein LLP, Counsel for Sirius, to Marlene H. Dortch, Secretary, FCC (Nov. 16, 2007); Letter from Gary M. Epstein, Latham & Watkins LLP, Counsel for XM, to Marlene H. Dortch, Secretary, FCC (Nov. 16, 2007); Letter from Gary M. Epstein, Latham & Watkins LLP, Counsel for XM, to Marlene H. Dortch, Secretary, FCC (Mar. 3, 2008); Letter from Jennifer D. Hindin, Wiley Rein LLP, Counsel for Sirius, to Marlene H. Dortch, Secretary, FCC (Mar. 4, 2008); Letter from Gary M. Epstein, Latham & Watkins LLP, Counsel for XM, to Marlene H. Dortch, Secretary, FCC (Mar. 18, 2008); Letter from Jennifer D. Hindin, Wiley Rein LLP, Counsel for Sirius, to Marlene H. Dortch, Secretary, FCC (Mar. 18, 2008); Letter from Gary M. Epstein, Latham & Watkins LLP, Counsel for XM, to Marlene H. Dortch, Secretary, FCC (Apr. 10, 2008); Letter from Jennifer D. Hindin, Wiley Rein LLP, Counsel for Sirius, to Marlene H. Dortch, Secretary, FCC (Apr. 10, 2008).

C3SR asks that Applicants provide them in electronic form with documents submitted as Highly Confidential under the Second Protective Order. Letter from Julian L. Shepard, Williams Mullen, Counsel for C3SR, to Monica Shah Desai, Chief, Media Bureau, FCC (Dec. 4, 2007). However, those documents were marked "Copying Prohibited" and C3SR stated that it did not want to argue about whether the documents were correctly designated. *Id.* at 2. Further, C3SR did not contend that it was unable to review the documents in paper form. Accordingly, we deny C3SR's request.

¹¹¹ 15 U.S.C. § 18.

¹¹² DOJ, *Statement of the Department of Justice Antitrust Division on its Decision to Close its Investigation of XM Satellite Radio Holdings Inc.'s Merger with Sirius Satellite Radio Inc.* (press release) (March 24, 2008), http://www.justice.gov/opa/pr/2008/March/08_at_226.html ("Mar. 24, 2008 DOJ Press Release").

¹¹³ 47 U.S.C. § 310(d).

Act,¹¹⁴ other applicable statutes, and the Commission's rules.¹¹⁵ We also consider whether it could result in public interest harms by substantially frustrating or impairing the objectives or implementation of the Act or related statutes.¹¹⁶ We employ a balancing process, weighing any potential public interest harms of the proposed transaction against any potential public interest benefits.¹¹⁷ Applicants bear the burden of proving, by a preponderance of the evidence, that the proposed transaction, on balance, will serve the public interest.¹¹⁸ If we are unable to find that the proposed transaction serves the public interest, or if the record presents a substantial and material question of fact, we must designate the application for hearing under section 309(e) of the Act.¹¹⁹

31. The Commission's public interest evaluation necessarily encompasses the "broad aims of the Communications Act,"¹²⁰ which include, among other things, a deeply rooted preference for

¹¹⁴ Section 310(d) requires that the Commission consider the applications as if the proposed transferee were applying for the licenses directly. 47 U.S.C. § 310(d). See *News Corp. and DIRECTV Group, Inc. and Liberty Media Corp. for Authority to Transfer Control*, 23 FCC Rcd 3265, 3276 ¶ 22 (2008) ("Liberty Media-DIRECTV Order"); *SBC Comm. Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, 20 FCC Rcd 18290, 18300 ¶ 16 (2005) ("SBC-AT&T Order"); *Verizon Comm., Inc. and MCI, Inc. Applications for Approval of Transfer of Control*, 20 FCC Rcd 18433, 18443 ¶ 16 (2005) ("Verizon-MCI Order"); *Applications of Nextel Comm., Inc. and Sprint Corp., for Consent to Transfer Control*, 20 FCC Rcd 13967, 13976 ¶ 20 (2005) ("Sprint-Nextel Order"); *News Corp.-Hughes Order*, 19 FCC Rcd at 483 ¶ 15; *Applications for Consent to the Transfer of Control of Licenses from Comcast Corp. and AT&T Corp., Transferors, to AT&T Comcast Corp., Transferee*, 17 FCC Rcd 23246, 23255 ¶ 26 (2002) ("Comcast-AT&T Order").

¹¹⁵ See, e.g., *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3276 ¶ 22; *SBC-AT&T Order*, 20 FCC Rcd at 18300 ¶ 16; *Verizon-MCI Order*, 20 FCC Rcd at 18442-43 ¶ 16; *Applications for Consent to the Assignment of Licenses Pursuant to Section 310(d) of the Communications Act from NextWave Personal Comm., Inc., Debtor-in-Possession, and NextWave Power Partners, Inc., Debtor-in-Possession, to Subsidiaries of Cingular Wireless LLC*, 19 FCC Rcd 2570, 2581 ¶ 24 (2004) ("Cingular-NextWave Order"); *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20574 ¶ 25.

¹¹⁶ See *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3276-77 ¶ 22; *SBC-AT&T Order*, 20 FCC Rcd at 18300 ¶ 16; *Verizon-MCI Order*, 20 FCC Rcd at 18443 ¶ 16; *Sprint-Nextel Order*, 20 FCC Rcd at 13976 ¶ 20.

¹¹⁷ See *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3277 ¶ 22; *SBC-AT&T Order*, 20 FCC Rcd at 18300 ¶ 16; *Verizon-MCI Order*, 20 FCC Rcd at 18443 ¶ 16; *Sprint-Nextel Order*, 20 FCC Rcd at 13976 ¶ 20; *News Corp.-Hughes Order*, 19 FCC Rcd at 483 ¶ 15; *Comcast-AT&T Order*, 17 FCC Rcd at 23255 ¶ 26.

¹¹⁸ See *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3277 ¶ 22; *SBC-AT&T Order*, 20 FCC Rcd at 18300 ¶ 16; *Verizon-MCI Order*, 20 FCC Rcd at 18443 ¶ 16; *Comcast-AT&T Order*, 17 FCC Rcd at 23255 ¶ 26; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20574 ¶ 25.

¹¹⁹ 47 U.S.C. § 309(e); see also *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3277 ¶ 22; *News Corp.-Hughes Order*, 19 FCC Rcd at 483 n.49; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20574 ¶ 25.

¹²⁰ *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3277 ¶ 23; *AT&T Wireless Services, Inc. and Cingular Wireless Corp. for Consent to Transfer Control of Licenses and Authorizations*, 19 FCC Rcd 21522, 21544 ¶ 41 (2004) ("Cingular-AT&T Wireless Order"); *News Corp.-Hughes Order*, 19 FCC Rcd at 483 ¶ 16; *Comcast-AT&T Order*, 17 FCC Rcd at 23255 ¶ 27; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20575 ¶ 26; *MediaOne Group, Inc., Consent to the Transfer of Control (Transferor) to AT&T Corp. (Transferee)*, 15 FCC Rcd 9816, 9821 ¶ 11 (2000) ("AT&T-MediaOne Order"); *Applications of VoiceStream Wireless Corp. or Omnipoint Corp., Transferors, and VoiceStream Wireless Holding Company, Cook Inlet/VIS GSM II PCS, LLC, or Cook Inlet/VIS GSM III PCS, LLC, Transferees*, 15 FCC Rcd 3341, 3346-47 ¶ 11 (2000); *AT&T Corp., British Telecomm., PLC, VLT Co. L.L.C., Violet License Co. LLC, and TNV [Bahamas] Limited Applications*, 14 FCC Rcd 19140, 19146 ¶ 14 (1999) ("AT&T Corp.-British Telecom. Order"); *Application of WorldCom, Inc., and MCI Comm. Corp. for Transfer of Control of MCI Comm. Corp. to WorldCom, Inc.*, 13 FCC Rcd 18025, 18030 ¶ 9 (1998) ("WorldCom-MCI Order").

preserving and enhancing competition in relevant markets,¹²¹ accelerating private sector deployment of advanced services,¹²² ensuring a diversity of information sources and services to the public,¹²³ and generally managing the spectrum in the public interest. This public interest analysis may also entail assessing whether a transaction will affect the quality of communications services or will result in the provision of new or additional services to consumers.¹²⁴ In conducting this analysis, we may consider technological and market changes, and the nature, complexity, and speed of change of, as well as trends within, the communications industry.¹²⁵

32. Our competitive analysis, which forms an important part of the public interest evaluation, is informed by, but not limited to, traditional antitrust principles.¹²⁶ The Commission and the DOJ each have independent authority to examine the competitive impacts of proposed communications mergers involving transfers of FCC licenses, but the standards governing the Commission's competitive review differ somewhat from those applied by the DOJ.¹²⁷ Like the DOJ, the Commission considers how a transaction will affect competition by defining a relevant market, looking at the market power of incumbent competitors, and analyzing barriers to entry, potential competition and the efficiencies, if any, that may result from the transaction. The Antitrust Division of the DOJ, however, reviews telecommunications mergers pursuant to section 7 of the Clayton Act, which prohibits mergers that may substantially lessen competition.¹²⁸ The Commission's competitive analysis under the public interest

¹²¹ 47 U.S.C. § 521(6) (one purpose of statute is to "promote competition in cable communications and minimize unnecessary regulation"); 47 U.S.C. § 532(a) (purpose of section is "to promote competition in the delivery of diverse sources of video programming and to assure that the widest possible diversity of information sources are made available to the public from cable systems in a manner consistent with growth and development of cable systems"); see also *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3277 ¶ 23; *Applications for Consent to the Transfer of Control of Licenses and Authorizations by Time Warner, Inc. and America Online, Inc. to AOL Time Warner Inc.*, 16 FCC Rcd 6547, 6555-56 ¶ 22 (2001) ("AOL-Time Warner Order").

¹²² See, e.g., Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 § 706 (1996) (providing for the deployment of advanced telecommunications capabilities).

¹²³ 47 U.S.C. § 521(4); see also 47 U.S.C. § 532(a).

¹²⁴ See *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3277-78 ¶ 23; *Cingular-AT&T Wireless Order*, 19 FCC Rcd at 21544 ¶ 41; *Comcast-AT&T Order*, 17 FCC Rcd at 23255 ¶ 27; *AT&T-MediaOne Order*, 15 FCC Rcd at 9821-22 ¶ 11; *WorldCom-MCI Order*, 13 FCC Rcd at 18031 ¶ 9.

¹²⁵ See *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3278 ¶ 23; *Comcast-AT&T Order*, 17 FCC Rcd at 23255-27; *AT&T-MediaOne Order*, 15 FCC Rcd at 9821-22 ¶ 11; *WorldCom-MCI Order*, 13 FCC Rcd at 18031 ¶ 9.

¹²⁶ *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3278 ¶ 24; *Cingular-AT&T Wireless Order*, 19 FCC Rcd at 21544 ¶ 42; *News Corp.-Hughes Order*, 19 FCC Rcd at 484 ¶ 17; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20575 ¶ 27; *Application of GTE Corp. and Bell Atlantic Corp. for Consent to Transfer Control of Domestic and International Authorizations and Application to Transfer Control of a Submarine Landing License*, 15 FCC Rcd 14032, 14046 ¶ 23 (2000) ("Bell Atlantic-GTE Order"); *Comcast-AT&T Order*, 17 FCC Rcd at 23256 ¶ 28; *WorldCom-MCI Order*, 13 FCC Rcd at 18033 ¶ 13.

¹²⁷ See, e.g., *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3278 ¶ 24; *Verizon-MCI Order*, 20 FCC Rcd at 18444 ¶ 18; *SBC-AT&T Order*, 20 FCC Rcd at 18302 ¶ 18; *Rainbow DBS Company LLC, Assignor, and EchoStar Satellite L.L.C., Assignee, Consolidated Application for Consent to Assignment of Space Station and Earth Station Licenses, and Related Special Temporary Authorization*, 20 FCC Rcd 16868, 16874 ¶ 12 (2005); *Sprint-Nextel Order*, 20 FCC Rcd at 13978 ¶ 22; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20575 ¶ 27. See also *Satellite Business Systems*, 62 FCC 2d 997, 1088 (1977), *aff'd sub nom. United States v. FCC*, 652 F.2d 72 (D.C. Cir. 1980) (*en banc*); *Northern Utilities Service Co. v. FERC*, 993 F.2d 937, 947-48 (1st Cir. 1993) (public interest standard does not require agencies "to analyze proposed mergers under the same standards that the Department of Justice . . . must apply").

¹²⁸ 15 U.S.C. § 18.

standard is somewhat broader, for example, considering whether a transaction will enhance, rather than merely preserve, existing competition, and takes a more expansive view of potential and future competition and its impact on the relevant market.¹²⁹ The DOJ's review is also limited solely to an examination of the competitive effects of the acquisition, without reference to diversity, localism, or other public interest considerations.

33. Our analysis recognizes that a proposed transaction may lead to both beneficial and harmful consequences. For instance, combining assets may allow a firm to reduce transaction costs and offer new products, but it may also create market power, create or enhance barriers to entry by potential competitors, or create opportunities to disadvantage rivals in anticompetitive ways.¹³⁰ The Commission's public interest authority enables us, where appropriate, to impose and enforce narrowly tailored, transaction-specific conditions that ensure that the public interest is served by the transaction.¹³¹ Section 303(r) of the Communications Act authorizes the Commission to prescribe restrictions or conditions, not inconsistent with law, which may be necessary to carry out the provisions of the Act.¹³² Indeed, our public interest authority enables us to rely upon our extensive regulatory and enforcement experience to impose and enforce conditions to ensure that a transaction will yield overall public interest benefits.¹³³

34. The Order is set forth, as follows, in four principal components. First, we assess the potential horizontal and vertical harms presented by the transaction, including the impact on diversity. Second, we evaluate the public interest benefits that Applicants claim will result from the transaction. Next, we balance the public interest harms posed by, and the benefits to be gained from, the merger. We conclude by examining whether the proposed transaction complies with the Communications Act, other applicable statutes and the Commission's rules and policies, as modified herein.

IV. POTENTIAL PUBLIC INTEREST HARMS

A. Introduction

35. In this section, we gauge the potential public interest harms that are likely to result from

¹²⁹ See *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3278 ¶ 25; *Bell Atlantic-GTE Order*, 15 FCC Rcd at 14047 ¶ 23; *AT&T Corp.-British Telecom. Order*, 14 FCC Rcd at 19147-48 ¶ 15; *Comcast-AT&T Order*, 17 FCC Rcd at 23256 ¶ 28.

¹³⁰ *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3278-79 ¶ 25; *Cingular-AT&T Wireless Order*, 19 FCC Rcd at 21545 ¶ 42; *AOL-Time Warner Order*, 16 FCC Rcd at 6550, 6553 ¶¶ 5, 15.

¹³¹ *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3279 ¶ 26; *Cingular-AT&T Wireless Order*, 19 FCC Rcd at 21545 ¶ 43; *Bell Atlantic-GTE Order*, 15 FCC Rcd at 14047 ¶ 24; *AT&T Corp.-British Telecom. Order*, 14 FCC Rcd at 19148 ¶ 15; see also *WorldCom-MCI Order*, 13 FCC Rcd at 18032 ¶ 10 (stating that the Commission may attach conditions to the transfers); *Applications of VoiceStream Wireless Corp., Powertel Inc. and Deutsche Telekom AG for Consent to Transfer Control of Licenses and Authorizations*, 16 FCC Rcd 9779, 9782 (2001) (conditioning approval on compliance with agreements with Department of Justice and Federal Bureau of Investigation addressing national security, law enforcement, and public safety concerns).

¹³² 47 U.S.C. § 303(r). See *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3279 ¶ 26; *Cingular-AT&T Wireless Order*, 19 FCC Rcd at 21545 ¶ 43; *Bell Atlantic-GTE Order*, 15 FCC Rcd at 14047 ¶ 24; *WorldCom-MCI Order*, 13 FCC Rcd at 18032 ¶ 10 (citing *FCC v. Nat'l Citizens Comm. for Broadcasting*, 436 U.S. 775 (1978) (upholding broadcast-newspaper cross-ownership rules adopted pursuant to section 303(r)); *U.S. v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968) (holding that section 303(r) permits the Commission to order a cable company not to carry broadcast signal beyond station's primary market); *United Video, Inc. v. FCC*, 890 F.2d 1173, 1182-83 (D.C. Cir. 1989) (affirming syndicated exclusivity rules adopted pursuant to section 303(r) authority).

¹³³ See, e.g., *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3279 ¶ 26; *Cingular-AT&T Wireless Order*, 19 FCC Rcd at 21545 ¶ 43; *News Corp.-Hughes Order*, 19 FCC Rcd at 477 ¶ 5; *Bell Atlantic-GTE Order*, 15 FCC Rcd at 14047-48 ¶ 24; *WorldCom-MCI Order*, 13 FCC Rcd at 18034-35 ¶ 14.

this transaction. We conclude that there is insufficient evidence in the record to predict the likelihood of anticompetitive harms. Thus, we will evaluate the potential harms to competition, diversity, and localism under assumptions that maximize the likelihood of harm. This approach is necessary to protect consumers from any potential adverse effects of the transaction while simultaneously allowing us to balance potential harms against potential public interest benefits. As a result of our competitive analysis under "worst-case" assumptions, we conclude that the merger, absent Applicants' voluntary commitments and other conditions, would result in potential harms. However, Applicants have committed voluntarily to take steps that will mitigate these harms.

B. Potential Competitive Harms

36. Transactions involving the acquisition of a full or partial interest in another company may give rise to concerns regarding "horizontal" concentration and/or "vertical" integration, depending on the lines of business in which the two firms are engaged. A transaction is said to be horizontal when the firms in the transaction sell or buy products that are in the same relevant product and geographic markets and are viewed as reasonable substitutes.¹³⁴ Horizontal transactions can eliminate competition between the firms and increase concentration in the relevant markets. The reduction in overall competition in the relevant markets may lead to substantial increases in prices paid by purchasers of products in the markets.¹³⁵ Vertical transactions raise slightly different competitive concerns. Vertical relationships exist when upstream firms produce inputs that downstream firms use to create finished goods. Transactions are said to be vertical when upstream firms and downstream firms are combined.¹³⁶ In this section, we analyze the potential horizontal and vertical effects of the proposed transaction.

1. Potential Horizontal Effects

a. Record Evidence on Defining the Relevant Markets

37. Consistent with the *DOJ/FTC Guidelines*, the Commission typically begins its analysis of horizontal effects by defining the relevant product and geographic markets. The *DOJ/FTC Guidelines* define the relevant product market as the smallest group of competing products for which a hypothetical monopoly provider of the products would profitably impose at least a "small but significant and non-transitory increase in price," presuming no change in the terms of sale of other products.¹³⁷ (This procedure is often called the "SSNIP Test" for market definition.¹³⁸) Thus, when one product is a

¹³⁴ See *News Corp.-Hughes Order*, 19 FCC Rcd at 507 ¶ 69.

¹³⁵ See ABA Sec. of Antitrust Law, *Antitrust Law Developments* 327 (5th ed. 2002); KIP VISCUSI, JOHN M. VERNON AND JOSEPH E. HARRINGTON, JR., *ECON. OF REG. AND ANTITRUST* 192 (3d ed. 2000) ("VISCUSI, *et al.*").

¹³⁶ See VISCUSI, *et al.* at 233. A merging of the firms, however, is not required for a vertical relationship to exist. Exclusive dealing arrangements between upstream and downstream firms, referred to as "vertical restraints," can accomplish the objectives of vertical integration. *Id.*

¹³⁷ See *DOJ/FTC Horizontal Merger Guidelines*, 57 Fed. Reg. 41552, §§ 1.11, 1.12 (Sept. 10, 1992), revised, 4 Trade Reg. Rep. (CCH) ¶ 13104 (Apr. 8, 1997). The *Guidelines* similarly define the relevant geographic market as "a region such that a hypothetical monopolist that was the only present or future producer of the relevant product at locations in that region would profitably impose at least a 'small but significant and nontransitory' increase in price, holding constant the terms of sale for all products produced elsewhere." *Id.* at § 1.21.

¹³⁸ One generally starts with a small relevant product market and asks if a hypothetical monopolist could profitably increase price in that market. If the price increase is not profitable because consumers will substitute to another competing product (i.e., if the cross-price elasticity between the products is large), then the SSNIP test is repeated, but the potential product market is expanded to include the next-best substitutes. The procedure continues until a hypothetical monopolist over all the included products can profitably raise price, identifying that set of products as the relevant product market. *DOJ/FTC Horizontal Merger Guidelines* at § 1.11.

reasonable substitute for the other in the eyes of a sufficiently large number of consumers, it is included in the relevant product market even though the products themselves are not identical.

38. *Product Market.* The commenters in this proceeding disagree as to the exact boundaries of the relevant product market. Applicants contend that the relevant product market is the relatively broad product market for "audio entertainment services," which includes terrestrial radio, HD Radio, wireless phones, iPods and other MP3 players.¹³⁹ They emphasize that substantial demand substitution exists "particularly between satellite radio and terrestrial radio."¹⁴⁰ Commenters opposing the transaction contend that SDARS constitutes a distinct relevant product market, separate from other audio entertainment services.¹⁴¹

39. In order to quantitatively determine the market, we must have certain statistical data, in particular the "elasticity" of demand for SDARS and other potentially competing products.¹⁴² No

¹³⁹ Joint Opposition at 36-37; Joint Opposition, Exh. A, CRA International, Economic Analysis of the Competitive Effects of the Sirius-XM Merger at 9-10 ("Joint Opposition, CRA Study").

¹⁴⁰ Joint Opposition at 37. See also Americans for Tax Reform Comments at 4; Citizen Outreach Project Comments at 1 (arguing that SDARS competes with terrestrial radio); CEI Comments at 6-10 (arguing that the product market should include anything that delivers audio entertainment services); Crutchfield Corp. Comments at 1-2 (arguing that HD Radio and Internet radio are competitors to SDARS); Foust Comments at 3-4 (arguing that SDARS competes with broadcast radio, smart phones, PDAs, and iPods); Free State Foundation Comments at 2-6 (arguing that SDARS is part of a larger audio entertainment and information services market); Heritage Foundation Comments at 2-3 (arguing that SDARS competes in a dynamic market, including broadcast radio and MP3 devices, because all offer audio entertainment); Public Knowledge Comments at 3, 10 (arguing that the relevant product market includes terrestrial radio, HD Radio, Internet radio, MP3 players, mobile/cellular telephones, and emerging mobile Internet radio services); League of Rural Voters Comments at 2-5 (arguing that consumers have numerous choices, including broadcast radio, if XM and Sirius merged); Letter from Brent Wiles, Exec. Dir., League of United Latin American Citizens, to Marlene H. Dortch, Secretary, FCC (May 11, 2007) at 2 (arguing that the relevant product market includes terrestrial radio and downloadable music devices).

¹⁴¹ See, e.g., C3SR Petition at 13-14; Decl. by J. Gregory Sidak Concerning the Competitive Consequences of the Proposed Merger of Sirius Satellite Radio, Inc. and XM Satellite Radio, Inc. (Mar. 16, 2007) at 25-32, transmitted by Letter from Julian L. Shepard, Williams Mullen, Counsel for C3SR ("C3SR, Sidak Decl."); NAB Petition at 11-23; NPR Petition at 9-15 (arguing that consumers have no other alternatives to SDARS for 100 plus channels of unregulated music, news, entertainment, and talk formats); Common Cause Petition at 36; AWRT Petition at 3-4 (arguing that no other product is a true substitute for SDARS); NATOA Petition at 6-9 (arguing that other audio entertainment services are not comparable to the services offered by SDARS); AAI Comments at 22-24 (arguing that alternatives to SDARS have significant limitations in constraining an SDARS monopolist from exercising market power, and lack some or all of SDARS unique attributes); Blue Sky Comments at 6 (arguing that, when compared with SDARS, no other service offers comparable program diversity, portability, or sound quality); Entravision Comments at 8-15 (arguing that other audio services will not provide an adequate check against anti-competitive harms arising from the merger); Prometheus Comments at 2 (arguing that HD Radio, MP3 players, terrestrial broadcast stations and Internet radio are complementary products, not substitutes for SDARS); Letter from U.S. Sen. Herb Kohl, Chairman, Subcommittee on Antitrust, Competition Policy, and Consumer Rights, to Kevin J. Martin, Chairman, FCC (May 23, 2007) at 1-2 (arguing that SDARS is the only medium offering hundreds of channels, programming on a national basis with superior sound quality, commercial free programming, and portable capabilities); Letter from U.S. Reps. James T. Walsh and John McHugh, to Kevin J. Martin, Chairman, FCC (May 9, 2007) at 1 (arguing that SDARS is a separate product market because it is a national multichannel audio service that users can use anywhere whereas local radio stations provided limited signal reach).

¹⁴² Elasticity is a measure of how much the sales of a product will rise or fall in response to a change in price. The own-price elasticity of demand is the percentage change in the quantity demanded of good A divided by the percentage change in the price of good A. The cross-price elasticity of demand is the percentage change in the quantity demanded of good A divided by the percentage change in the price of good B.

commenter in this proceeding has provided detailed quantitative estimates of the own-price and cross-price elasticities of demand for the services that might be included within the relevant product market. We note that in its announcement of its intent not to block the transaction, the Antitrust Division of the Department of Justice did not discuss any such evidence from its investigation, nor did the Antitrust Division define a relevant product market.¹⁴³ Moreover, we are unable to perform our own analysis. This is chiefly because there has been little or no variation in prices for the various services at issue. Since SDARS services were launched in 2002, XM has changed its monthly recurring price only once, from \$9.99 to \$12.95 in April, 2005, and Sirius has not changed its corresponding price at all.¹⁴⁴ Terrestrial (broadcast) radio has a zero (and thus unchanging) price. Without price variation, it is not possible for us to develop our own estimates of the elasticities of demand required for a quantitative definition of the market.¹⁴⁵

40. While there is other evidence and data in the record that shed some light on the relative substitutability of various audio entertainment services, as well as evidence concerning the product characteristics and prices of the various services that might be included in the relevant product market, this evidence is insufficient in this case for us to delineate the boundaries of the relevant product market with any precision or confidence. Most significantly, it is insufficient for us to quantitatively estimate whether and by how much prices might rise or fall if we were to approve this transaction without a voluntary commitment by Applicants not to raise prices.

41. The only systematic empirical analysis of substitutability between SDARS and any of its potential substitutes was provided in a study conducted by Charles River Associates ("CRA") on behalf of Applicants (the "CRA Study"). Applicants commissioned BIA Research, Inc. to provide data on the number of AM/FM radio stations reaching each census block in the lower 48 U.S. states. CRA used these data to estimate the average number of AM/FM stations received in each ZCTA (a Census Bureau area approximating a ZIP code). The CRA study examined the relationship between the total subscriptions to satellite radio and the number of available terrestrial broadcast stations. After controlling for a number of factors, such as income, gender mix, and the percentage of population commuting by car, the study finds a statistically significant inverse relationship between SDARS penetration and the number of terrestrial

¹⁴³ See Mar. 24, 2008 DOJ Press Release, n.112, *supra*.

¹⁴⁴ In addition to the price of a monthly subscription, subscribers listening to XM or Sirius programming in their automobile must also obtain a receiver and have it installed. XM and Sirius often subsidize the price of the receiver and the price of installation. C3SR, Sidak Decl. at 55.

¹⁴⁵ We find unpersuasive Sidak's estimated own-price elasticity of demand. While Sidak estimates a "critical" own-price elasticity of demand for SDARS of -1.52 using current operating margins of 65 percent and an assumption of constant own-price elasticity of demand. Sidak then explains why the "actual" own-price elasticity of demand is less than -1.52 (in absolute terms) using information from XM's price increase from \$9.95 to \$12.95, churn rates, conversion rates, and marquee content (specifically, indecent content). Sidak concludes that this is evidence that SDARS represents a distinct product market. C3SR, Sidak Decl. at 9-14. Hazlett asserts that there are several deficiencies in Sidak's approach and conclusions. Specifically, Hazlett argues that "there is no measurement of the actual, purportedly 'low' elasticity, and therefore nothing to specifically compare to the critical elasticity." See Thomas W. Hazlett, *The Economics of the Satellite Radio Merger* (June 14, 2007) at 29-32, transmitted by Letter, on behalf of Applicants, from Thomas Hazlett, Prof. of Law & Econ., George Mason Univ., to Marlene H. Dortch, Secretary, FCC (June 14, 2007) ("Hazlett Study"). CRA also disagrees with Sidak's estimates and conclusions regarding SDARS own-price elasticity. CRA argues that (1) Sidak's approach does not employ an objective and appropriate benchmark for XM's growth in the absence of the price increase from \$9.95 to \$12.95; (2) there were numerous other changes affecting demand that occurred around the same time as the price increase; (3) a finding that XM's demand is inelastic is inconsistent with standard profit-maximization conditions; and (4) Sidak's analysis was based only on the near-term impact on subscribers and profitability, not on the longer-term impact that is more relevant in growing market like this one. Joint Opposition, CRA Study at 44-45, n.170.

radio signals. In other words, as the number of terrestrial radio stations increases, SDARS penetration decreases. CRA uses this result to argue that SDARS and terrestrial radio are substitutes.¹⁴⁶

42. We find that this study does not provide the evidence required to determine whether SDARS should be considered to be in the same product market as terrestrial radio. This indirect means of measuring substitutability of SDARS and terrestrial radio (as opposed to directly measuring cross-price elasticities)¹⁴⁷ leaves open the possibility that other unidentified (and possibly unobservable) factors could be the cause of this inverse relationship. The problem of unobserved confounding factors (i.e., omitted variables) is a well-known problem in the econometrics literature.¹⁴⁸ The most obvious potential factor is the density of the population of the area, since the number of radio stations will likely depend on the number of potential listeners. Density may be related in some direct or indirect way to factors affecting SDARS subscribership, such as the length of the driving commute (as opposed to the number of people who drive to work, which was included in CRA's analysis), or the number of professional truckers, deliverymen and other people in the area who spend the day driving, or demographic variation by race or age. In other words, we might expect that areas of the country where people spend less time in their vehicles have lower subscription rates to SDARS. Thus the inverse relationship between SDARS penetration and terrestrial radio station availability might not be because they are substitutes, as CRA contends, but because of other factors that are affected by population density and size.¹⁴⁹

43. In addition to these theoretical problems with CRA's analysis, there is survey data available from Arbitron that indicates SDARS listeners are also heavy listeners of AM/FM radio. This suggests that AM/FM radio might be a complement rather than a substitute to SDARS.¹⁵⁰ Also, an analysis performed by C3SR finds that the results of the CRA study are not "robust" (the results do not hold) when the data are analyzed by Arbitron market instead of by ZCTA, with the analysis limited to just subscribers in Arbitron markets. Indeed, in this analysis a positive relationship was found between terrestrial radio station availability and SDARS penetration.¹⁵¹ Finally, and perhaps most importantly,

¹⁴⁶ Joint Opposition, CRA Study at 14-16; also see Timothy H. Savage, Martino De Stefano, and Steven R. Brenner, CRA, *Further Analysis of Econometric Evidence that Satellite and Terrestrial Radio are Demand Substitutes*, transmitted by Letter from Jennifer D. Hindin, Wiley Rein LLP, on behalf of Applicants, to Marlene H. Dortch, Secretary, FCC (Jan. 11, 2008) ("Applicants, CRA Further Analysis").

¹⁴⁷ Sidak points out that this analysis is not measuring the cross-price elasticity of demand for SDARS with respect to terrestrial radio, but is instead attempting to observe the elasticity of demand for SDARS with respect to changes in the number of terrestrial radio stations. Third Supplemental Decl. of J. Gregory Sidak, transmitted by Letter from Julian L. Shepard, Williams Mullen, Counsel for C3SR, to Marlene H. Dortch, Secretary, FCC (Oct. 1, 2007) at 21 ("C3SR, Sidak Third Supp. Decl.").

¹⁴⁸ See, e.g., JEFFREY WOOLDRIDGE, *INTRO. ECONOMETRICS: A MODERN APPROACH* 95-99 (3d ed. 2005). PETER KENNEDY, *A GUIDE TO ECONOMETRICS* 3, 78-80, 88 (4th ed. 1998); WILLIAM H. GREENE, *ECONOMETRIC ANALYSIS* 401-04 (3d ed. 1997); and JACK JOHNSON AND JOHN DINARDO, *ECONOMETRIC METHODS* 110 (4th ed. 1997).

¹⁴⁹ C3SR, Sidak Third Supp. Decl. at 22; Letter from Julian L. Shepard, Williams Mullen, Counsel for C3SR, to Marlene H. Dortch, Secretary, FCC, Att. Preliminary Review of CRA Regression Analysis, J. Gregory Sidak, Georgetown Univ. Law Center, and Hal J. Singer and Allan Ingraham, Criterion Eon. (Dec. 7, 2007) ("C3SR, Review of CRA Analysis").

¹⁵⁰ Arbitron, "Satellite Radio Channels Account For 3.4 Percent of All Radio Listening In Fall 2006 Arbitron Survey" (press release), Feb. 27, 2007 (stating that "satellite listeners spent an average of 33 hours a week with radio compared with the typical listener who listened approximately 19 hours a week to radio. Also, people who listened to satellite spent more time with AM/FM radio (14 hours) than they did with satellite radio (10 hours 45 minutes) or Internet (8 hours 15 minutes)"); see also C3SR, Review of CRA Analysis at 13.

¹⁵¹ C3SR, Review of CRA Analysis. C3SR asked that we seek the data underlying CRA's study. Letter from Julian L. Shepard, Williams Mullen, Counsel for C3SR, to Marcia Glauber, Deputy Chief, Industry Analysis Division, (continued....)

even if we accept that the CRA study's results indicate that there is some substitutability between SDARS and terrestrial radio,¹⁵² they do not demonstrate that SDARS and terrestrial radio are sufficiently close substitutes to be included in the same relevant product market. Just showing that there is some substitution is not enough for antitrust analysis – it is necessary to show that the degree of substitutability is high enough that a small but significant nontransitory price increase for SDARS service alone will cause sufficient numbers of consumers to drop SDARS service to make the price increase unprofitable. CRA's analysis provides us with insufficient evidence to make this determination.

44. Turning to the submissions of commenters opposing the transaction, we find that the evidence from other surveys C3SR provided or referenced, specifically the NRG Research Group survey and the Wilson Research Strategies survey, provide insufficient evidence that SDARS constitutes a distinct relevant product market. Between January 24 and January 30, 2008, NRG Research Group identified and interviewed 407 individuals who subscribe to satellite radio. The NRG survey provides evidence that if one competitor increases advertising content on its channels, large numbers of subscribers would choose the other service. The NRG survey supports the hypothesis that one reason for subscribing to satellite radio is to avoid commercials.¹⁵³ The survey, however, has several problems that make it difficult to use its results for the purpose of market definition. First, NRG report consumers' stated intentions and not their actual choices. Consumer behavior often differs from stated intentions. Second, the survey reports on consumer sensitivity to changes in advertising, but not on their sensitivity to changes in pricing. Consumers may differ in their sensitivity to each, with important implications for the analysis.

45. The Wilson survey, discussed by Sidak and NAB, is flawed and therefore cannot be relied upon for purposes of this transaction. In June 2007, Wilson Research Strategies conducted a survey of current satellite radio subscribers at the request of the NAB. According to the publicly available executive summary, the survey polled 501 current SDARS subscribers on a range of questions to determine their reasons for subscribing and their demographic characteristics. The survey results suggest that a significant number of satellite radio subscribers: (1) are less likely to have a sufficient amount of terrestrial radio service by virtue of their geographic location, (2) value certain attributes of satellite radio that are not available on terrestrial radio, (3) do not perceive MP3 players to be substitutes for satellite radio, and (4) are sensitive to the price, and would not pay more to receive the programming offered by both XM and Sirius.¹⁵⁴ We find the survey flawed for several reasons. First, again, this survey relies on

(Continued from previous page)

Media Bureau, FCC (Sept. 11, 2007). Because we reject the results of CRA's study based on the information submitted by Applicants, we find that access to the underlying data is unnecessary.

¹⁵² This result is consistent with the *1997 SDARS Service Rules Order*, where the Commission predicted that while "not, of course, perfect substitutes," the SDARS providers would "face competition from terrestrial radio services, CD players in automobiles and homes, and audio services delivered as part of cable and satellite services." *1997 SDARS Service Rules Order*, 13 FCC Rcd at 5786 ¶¶ 77-78; see also *2006 Quadrennial Regulatory Review - Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996*, Report and Order and Order on Reconsideration, 23 FCC Rcd 2010, 2071-72 ¶ 114 (2008) (finding a lack of evidence to conclude that terrestrial radio is in the same product market as SDARS).

¹⁵³ Letter from Benjamin D. Arden, Williams Mullen, Counsel for C3SR, to Marlene H. Dortch, Secretary, FCC (Apr. 3, 2008), Att. NRG Research Group, Survey of Satellite Radio Users (Feb. 8, 2008) ("NRG Survey"); Letter from Julian L. Shepard, Williams Mullen, Counsel for C3SR, to Marlene H. Dortch, Secretary, FCC (Apr. 3, 2008), Att. Analysis of the Proposed XM-Sirius Merger, J. Gregory Sidak, and Hal J. Singer, Criterion Economics at 9-10 ("C3SR, Sidak, Singer Analysis").

¹⁵⁴ Wilson Research Strategies, Exec. Summary, Survey of Satellite Radio Subscribers at http://www.w-r-s.com/press/WRS_NAB%20Sat%20Radio%20Survey_PressRelease_070710.pdf (visited June 25, 2008); C3SR Petition, Exh. B, Supplemental Decl. of J. Gregory Sidak at 18-19 ("C3SR Petition, Sidak Supp. Decl").

consumers' stated intentions and not their actual choices. Second, this survey provides mixed evidence concerning the definition of the market and the likely impact of the merger, suggesting that many subscribers value SDARS service and its unique characteristics over alternative sources of audio entertainment, but are sensitive to the price and would not be willing to pay a higher price for combined programming from Applicants. In any event, the details of the survey were never made public or put into our record. Rather, just an executive summary was made available, such that, for example, we were unable to examine the methodology, the questions asked, or the underlying data, and therefore were unable to determine the survey's reliability.¹⁵⁵ We are thus unable to rely on any of this survey's results.

46. *Geographic Market.* Although Applicants do not explicitly address the relevant geographic market, their market share calculations suggest that they are assuming a national geographic market.¹⁵⁶ Opponents apparently disagree on the appropriate relevant geographic market: some appear to argue for a national market,¹⁵⁷ while others appear to advocate a more localized relevant geographic market.¹⁵⁸ However, without knowing the contours of the relevant product market, it is impossible to define precisely the relevant geographic market. For example, if the relevant product market were limited to SDARS, we could define the relevant geographic market as a national market. In contrast, if the relevant product market were to include terrestrial radio, we would need to adopt a more localized relevant geographic market to reflect the fact that terrestrial radio stations have a limited reach.

47. We find that the record evidence is insufficient to define precisely the relevant product or geographic markets. Without defining the relevant product and geographic markets, we cannot perform a structural analysis to predict the likelihood of anticompetitive harms. Thus, as explained below, we must make certain assumptions about the relevant product and geographic markets in order to perform our competitive analysis.

b. Competitive Analysis Under Worst-Case Assumptions

48. As stated in Section III above, Applicants bear the burden of proving that the proposed transaction, on balance, serves the public interest. If we are unable to find that the proposed transaction serves the public interest, or if the record presents a substantial and material question of fact, we would designate the application for hearing under section 309(e) of the Act.¹⁵⁹ However, not every question of fact is material. Specifically, even if we are unable to precisely determine the extent of the alleged harms, if we are able to determine that the conditions we are imposing would ameliorate any anticompetitive harm and that the transaction, as conditioned, would serve the public interest, then we may grant the application.¹⁶⁰ Because Applicants bear the burden of proof, we will evaluate potential horizontal competitive harms under assumptions that maximize the likelihood of harm. We note that the

¹⁵⁵ In particular, the phrasing of the questions, the order of the questions, and the specific distribution of responses are not available.

¹⁵⁶ C3SR, CRA Study at tbls. C1-C6.

¹⁵⁷ See, e.g., AAI Comments at 29; C3SR, Sidak Decl. at 28; C3SR Petition, Sidak Supp. Decl. at 34; Letter from Philip M Napoli, Dir., Donald McGannon Communication Research Center, to Marlene H. Dortch, Secretary, FCC, Att. Market Definition in Satellite Radio: Why the Sirius/XM Merger Would Result in Anti-Competitive Conditions at 3-7 (June 29, 2007) ("McGannon June 29, 2007 Ex Parte"); NAB Petition at 11-16; NPR Petition at 15-16; Common Cause Petition at 14.

¹⁵⁸ See, e.g., C3SR Reply at 7-11 (arguing that the geographic market is not national due to the differences in the availability of substitutes); John Smith Comments at 3-4.

¹⁵⁹ 47 U.S.C. § 309(e); see also *Liberty Media-DIRECTV Order*, 23 FCC Rcd at 3276-77 ¶ 22; *News Corp.-Hughes Order*, 19 FCC Rcd at 483 n.49; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20574 ¶ 25.

¹⁶⁰ See, e.g., *Comcast-AT&T Order*, 17 FCC Rcd 23256-57, 23270 ¶¶ 30, 66.

assumptions we adopt below provide a worst-case scenario for Applicants, but we find this approach is necessary in order to protect consumers from any potential adverse effects of the transaction while *simultaneously allowing us to balance the potential harms against the potential public interest benefits of the transaction*. After conducting the analysis under the worst-case assumptions, we find that with Applicants' voluntary commitments and other conditions, the transaction will be in the public interest.

49. Consistent with the foregoing principles, we will assume that SDARS constitutes a separate relevant product market. Furthermore, because Applicants are the only current participants in this relevant product market and because both provide nationwide service, we assume that the relevant geographic market is national. These assumptions will tend to *overestimate* any anticompetitive effects. Again, we believe it necessary to employ such worst-case assumptions to ensure that, when we balance the potential costs and benefits of the proposed transaction, we do not inadvertently approve a merger that is not in the public interest.

50. Given these assumptions about the relevant product and geographic markets, it is clear that Applicants are the only current providers of SDARS service. We find that entry by a new SDARS provider is unlikely to be sufficiently timely to defeat any attempted price increase.¹⁶¹ First, we are unaware of any appropriate, unencumbered spectrum that is likely to become available in the near future that would allow another company to provide SDARS service. Second, even if such spectrum were available immediately, we believe that it would take years for the new entrant to build the necessary infrastructure and to develop the necessary programming and marketing resources to become a viable competitor.¹⁶² Furthermore, we find no "uncommitted entrants" that should be counted as market

¹⁶¹ See, e.g., *DOJ/FTC Horizontal Merger Guidelines* § 3.0 ("A merger is not likely to create or enhance market power or to facilitate its exercise, if entry into the market is so easy that market participants, after the merger, either collectively or unilaterally could not profitably maintain a price increase above premerger levels. . . . Entry is that easy if entry would be timely, likely, and sufficient in its magnitude, character and scope to deter or counteract the competitive effects of concern.").

¹⁶² The *DOJ/FTC Horizontal Merger Guidelines* require that, for such potential entry to be considered, it must be "timely, and likely, and sufficient in its magnitude, character and scope to deter or counteract the competitive effects" of the proposed transaction. With respect to timeliness, DOJ will generally consider only entry "that can be achieved within two years from initial planning to significant market impact." *Id.* at § 3.0. According to NAB, "[t]his is extremely unlikely in the case of satellite DARS, as evidenced by the fact that it reportedly took XM and Sirius nearly four years from the grant of spectrum by the FCC to commercial availability, including the technically difficult step of launching broadcast satellites." Analysis of Antitrust Concerns Regarding the XM/Sirius Merger, Crowell Moring at 8-9, transmitted by Letter from Lawrence A. Walke, NAB, to Marlene H. Dortch, Secretary, FCC (May 22, 2007) ("NAB, Antitrust Analysis Memo"). NAB adds that other entry barriers are extremely high, including capital costs, programming acquisition costs, and subscriber acquisition costs. *Id.* at 9. For example, NAB states, a new satellite could cost more than \$300 million. *Id.* Therefore, NAB concludes, even if the Commission were to allocate additional spectrum to permit entry by a new SDARS provider, the threat of such entry is not likely to constrain short-term price increases by the merged firm and would not be sufficient to ameliorate the certain anticompetitive effects of the proposed transaction. *Id.*

The Sidak Declaration also argues "the experience of the existing SDARS suppliers implies that new entry would not impose any price discipline within the next two years. Applicants were founded in the early 1990s, but did not offer SDARS until September 2001. Both XM and Sirius had to overcome significant fixed costs of establishing a nationwide radio network, including the acquisition of spectrum and programming." C3SR, Sidak Decl. at 35-36. Sidak notes that Applicants have each invested roughly \$5 billion to date and that such an entry cost for another SDARS provider makes it extremely unlikely that any firm will enter *de novo* in SDARS and have a constraining effect on price over the next two years. C3SR Petition, Sidak Supp. Decl. at 30-31.

In contrast, CRA argues that *de novo* entry could occur through the use of Mobile Satellite Service frequency bands in 2008 or 2009 or through the use of Wireless Communication Service spectrum in more than two years. Joint Opposition, CRA Study at 61.